

♀. Caput cornu brevi; prothorax carina transversa leviter producta, non dentata, angulis anticis dentatis, impressionibus ad marginem anteriorem fere nullis.

Long. 19–26, lat. 11–15 mm.

Typ. in Mus. Walter Rothschild.

Bluish green, shining; head rounded, produced at the eyes into a slight tooth, rugose, with an arcuate, nearly smooth impression behind the horn; the latter moderately long, recurved, rugose in the male; that of the female is short. The prothorax slightly rugose, outer margin rounded but somewhat produced in the middle, posterior angles in both sexes scarcely rounded; an impressed line above the horn, quite distinct in the male. The prothoracic horn of the male bifurcate and quite straight, moderately long, the impressions deep and smooth, approaching each other above the horn. The transverse carina of the female is small, without teeth. Anterior angles of the prothorax of the female with a prominent tooth, the impressions quite obsolete.

The scutellum slightly impressed before the apex, rugosely punctured nearly throughout. Elytra striped with raised lines, one of which is situated at the suture, two or three in the middle between suture and shoulder, and one at the shoulder prominent, especially at the base, obsolete near the apex; the spaces between these lines rugose; the stripes near the outer margin obsolete.

This species resembles *E. yunnanus*, Fairm., and *E. Potanini*, Sem., in its striated elytra (which give it in the female almost the appearance of *Geotrupes sylvaticus*, Panz.); it differs, however (so far as we can tell from the descriptions), chiefly in the development of the horns and the impressions of the prothorax.

Our specimens (2 ♂ and 2 ♀) were taken in North Manipur at elevations of 5000 to 8500 feet (Aug. 1889) and in the Naga Hills (4 ♂, 2 ♀); and we have also some specimens (2 ♂, 2 ♀) said to have come from the Punjaub.

XI.—*Descriptions of Five new Species of Australian Sawflies.* By W. F. KIRBY, F.L.S., F.E.S., Assistant in Zoological Department, British Museum (Natural History).

THE following new species were received from Mr. Charles French, of Melbourne, and were probably collected in that neighbourhood:—

Perga divaricata.—— *sericea.*—— *sellata.*—— *lalage.**Cerealces cyathiformis.*

Among other saw-flies in the collection were two female specimens of *Perga Lewisii*, Westw., differing from the type in having black antennæ.

Perga divaricata.

Antennæ six-jointed.

Long. corp., ♂ 15 millim., ♀ 19 millim.

Male.—Reddish chestnut, redder beneath; antennæ, a spot within each, a spot below each eye, clypeus, labrum, prothorax (except a curved transverse stripe in front), the tip of the central lobe of the mesothorax, the legs, a stripe on the lower part of the mesopleura (curving to the base of the middle coxæ), a spot above the hind coxæ, and a row of spots on the sides of the abdomen beneath yellowish white. Abdomen with segments 2–6 silky black above. Wings yellowish hyaline; stigma large, reddish, grooved, with a blackish cloud beneath; only three submarginal cells, and even these imperfectly separated. Hind wings with a blackish cloud covering the middle cell and extending beyond it above and below.

Head, thorax, and scutellum thickly punctured; a deep groove running backwards outside each ocellus and slightly curving inwards to the occiput, the space between convex and rather raised behind; mesothorax with the frontal and lateral lobes well separated, the former with a deep groove in the middle, and the latter each with three ridges meeting behind, the space between the two outer ones smooth. Scutellum convex on each side at the base and with a wide central groove, diverging behind, the projecting lateral spines rather wide apart.

Female similarly coloured, but more varied with yellowish white, the punctures larger and the grooves on the head, thorax, and scutellum somewhat less strongly marked. The following additional yellowish-white markings may be noted:—The hinder orbits, two spots on the grooves near the occiput, the upper borders of the prothorax (which is red in the female), a line below the wings, a narrow line bordering the sides of the mesothorax above, and the extremity and lateral points of the scutellum. Wings yellowish hyaline, unclouded, but with some of the nervures (which are entirely

reddish in the male) black. Four distinct submarginal cells. Legs redder than in the male, with the coxæ and trochanters whitish.

I was at first inclined to refer these specimens (which I think I am correct in placing together as sexes) to *P. castanea*, Kirb.; but in that species the scutellum is much less thickly punctured.

Perga sericea.

Long. corp. 11 millim.

Male.—Antennæ six-jointed, the club as long as the three preceding joints; joint 3 rather longer than 4 and 5, and slightly constricted near the base. Head above, thorax, and pleura thickly and closely punctured; head black above, including the antennæ and mandibles, clypeus and labrum testaceous; orbits broadly testaceous, from outside the antennæ to the hinder rim of the head, but ending in a point where the occiput becomes concave. Grooves outside the outer ocelli indistinct. Prothorax testaceous, with the extreme front black, this colour curving slightly forwards on the sides. Mesothorax and scutellum black; a wide stripe on the pleura, narrowed behind, the hinder borders of the mesonotum (narrowly) and the lateral margins and hinder angles of the scutellum (rather broadly) testaceous. Mesonotum with the sutures slightly marked; a groove on the frontal lobe and two slight ridges on each of the lateral lobes; scutellum slightly grooved; the terminal tubercles unusually small. Wings hyaline, with rufous costa and nervures, with three or four submarginal cells; nervures greatly interrupted with bullæ. Legs testaceous, the extremities of the hind femora, of the hind tibiæ, and of the joints of the tarsi black. Abdomen blue-black above, with a fine white silky pubescence; terminal segment and under surface testaceous.

Not closely allied to any species before me, but much resembles the description of *Pseudoperga ventralis*, Guér., from Tasmania, though apparently distinct.

Perga sellata.

Long. corp. $12\frac{1}{2}$ millim.

Male.—Antennæ six-jointed, the club as long as the three preceding joints.

Head, thorax, and pleura thickly and closely punctured; head luteous, the tips of the mandibles black; vertex between the eyes above black, from a curve just behind the antennal

tubercles to the occiput, where the black colour is convex, being contracted behind; a shallow groove on each side of the outer ocelli. Thorax luteous; mesothorax black above, with the sutures scarcely marked; frontal lobe slightly grooved; a slight ridge bounding the black colour on each side; the smooth space between this and the large oblique ridges running back to the scutellum are tawny. Scutellum tawny, grooved in the middle, with the apical points lobate, situated at the hinder angles, and projecting very slightly outwards. Wings yellowish hyaline, with reddish costa and nervures; four submarginal cells. Legs and abdomen luteous; hind femora, apical half of hind tibiae, and the greater part of the hind tarsi beneath rufous.

Resembles *P. bicolor*, Leach, in the structure of the thorax.

Perga Lalage.

Long. corp. 10–12 millim.

Male.—Antennæ seven-jointed, black, with testaceous yellow markings, paler beneath.

Head testaceous yellow; antennæ tawny, sometimes with the two basal joints blackish; ocelli occupying the upper and broadest part of a spade-shaped blotch. The upper ocelli are black and stand at the extremities of a ridge like a pointed arch, below which the lower ocellus, which is reddish, stands. A broad stripe runs backwards from the spade-shaped spot nearly to the occiput; the spot tapers forward between the antennæ, leaving a space within the base of each yellow, and the black colour then extends over the clypeus (except a short line on each side at its lower extremity) and labrum. The mandibles are also blackish or dark red. Above the antennæ a black stripe, contiguous with the spade-shaped spot, curves inward on each side to the occiput.

Thorax black, thickly and rather finely punctured, the sutures well defined; prothorax with a waved yellowish stripe on each side of the hind border; mesothorax with the central lobe with a smooth furrow, extending nearly to the extremity, which is marked with a testaceous spot. Hinder lateral borders of mesothorax narrowly testaceous; tegulae and scutellum testaceous, the latter grooved and with the apical tubercles nearly straight. Pleura with three testaceous or whitish stripes on each side, one below the wings, one (the broadest) lower down, widened upwards in front and tapering behind, and one slender, nearer the median line; there is also a large testaceous spot above the hind coxæ.

Legs testaceous, femora more or less black; hind legs with

the base of coxæ, femora (which are rather thickened), tips of tibiæ, and tarsi black.

Abdomen blue-black above, with a testaceous stripe on the hind border of the second segment; anal segment and under surface pale testaceous; base of segments beneath more or less blackish; a row of small but conspicuous black dots on the sides beneath.

Wings hyaline; fore wings much clouded with yellowish and thickly studded with hairs; nervures testaceous, costal nervure and stigma broadly castaneous; four submarginal cells.

Allied to *P. Jurinei*, Westw., but rather more slender. In *P. Jurinei* the lower part of the face and the under surface of the abdomen are almost destitute of black markings.

Cerealces cyathiformis.

Long. corp. 10 millim.

Male.—Black, varied with yellow; head, thorax, and pectus covered with large depressed punctures; head black, a groove running from the occiput outside each of the outer ocelli; eyes bordered before and behind with testaceous; antennæ tawny, eleven- or twelve-jointed, the two basal joints darkest, sometimes nearly black; joints 3 to 8 broad, about twice as broad as long (joint 3 the longest) and cyathiform, being widely expanded at the extremity, which gives them a somewhat nodose appearance; the terminal joints more rounded at the extremity and the last rather small; a testaceous spot below and sometimes above each scape; clypeus rather narrow, testaceous, slightly concave, and bordered with testaceous below; labrum black; jaws black or marked with red; prothorax with the hinder angles bordered with testaceous in front of the tegulæ, which are testaceous or pitchy; mesothorax with a groove in front and two slight ridges on each side behind. Wings hyaline, with brown nervures, and set with numerous but scattered short bristles. Legs with the femora and coxæ mostly black or striped with black (hind legs darkest); tips of coxæ, trochanters, and base of femora white; four front tibiæ and tarsi testaceous; hind tibiæ and tarsi reddish, the former slightly brownish at the extremity; scutellum black, grooved, laterally ridged, and narrowly edged behind with testaceous, and ending in a short testaceous spine on each side. Abdomen black, first segment with a whitish spot on each side; second with a waved testaceous stripe above, on the middle, interrupted on the median line; terminal segment tawny.

Described from two male specimens, one darker than the other, and differing also in the number of joints of the antennæ, but in no other particulars. *C. scutellata* is very similar in form and structure, but the antennæ are only ten-jointed, not cyathiform, and the three terminal joints are much less distinctly separated than in *C. cyathiformis*.

XII.—*Notes on the Genus Entomogramma as represented by the Noctuid Moths of that Group in the Collection of the British Museum.* By ARTHUR G. BUTLER, F.L.S., F.Z.S., &c.

WHEN he founded the genus *Entomogramma*, M. Guenée separated the species under distinct groups in consequence of their different antennal structure; indeed, no two species of the genus as originally constituted are quite alike in their male characters, and one of them was considered by Mr. Moore to be so dissimilar that he made it the type of a new genus. The latter, however, has no higher claim than the others to be so distinguished; and as it would be necessary for the sake of consistency to found a separate genus for every species of the original group, provided that the secondary sexual characters were taken into account, it seems preferable to regard them, as Guenée did, merely as sections of one variable genus.

The practical common sense of this mode of procedure being admitted, Mr. Hampson has called my attention to the fact that various other species, differing only from typical *Entomogramma* (in the variability of the same organs in the male sex) in a similar though somewhat different manner, have been wrongly described in the genera *Thermesia*, *Phurys*, &c. By adding these to *Entomogramma* I find that a tolerably gradational series is formed, evidently related throughout. The species of *Entomogramma* in the Museum series thus resolve themselves into eight sections, each of which differs somewhat from all the others in its male structure, whilst that of the female remains almost the same, excepting in the case of section *g*, where the female is the modified sex. These sections will now stand as follows:—

ENTOMOGRAMMA, Guen.

Section *a*. TARAMINA, Moore.

Males with basal third of antennæ dilated, outer two thirds